

## 1 ABSTRACT

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Title of Thesis: *HPLC Determination of Potential Drugs*

The diploma thesis describes selection of the most suitable conditions for HPLC determination of a recently prepared potential bronchodilators.

The aim of the thesis was to find a suitable isocratic method for the HPLC determination of the substance in rat plasma to be used during pharmacokinetic experiments. The chromatographic column Ascentis® Express RP – Amide was utilized. Best results were achieved with mobile phase consisting of acetonitrile and phosphate buffer (pH = 3,0) in volume ratio 12:88. The column was thermostated at 20 °C. Fluorescence detection ( $\lambda_{\text{ex}} = 228 \text{ nm}$ ,  $\lambda_{\text{em}} = 380 \text{ nm}$ ) was applied to get a sufficient sensitivity. 4-quinazolinole was chosen as an internal standard. Biological samples were processed by LLE before the HPLC analyses.

The proposed method was validated successfully and then employed in pharmacokinetic studies.